

THE EFFECT INCLUSIVE EDUCATION PRACTICE DURING PRESCHOOL HAS ON THE PEER RELATIONS AND SOCIAL SKILLS OF 5-6 – YEAR OLDS WITH TYPICAL DEVELOPMENT

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The purpose of this study is to set forth the effect preschool inclusive education practices have on the peer relations of 5-6 year olds with typical development. The study comprised of two sample groups. The children in both groups were attendees of kindergartens at primary schools governed by the Ministry of National Education located in the Karatay district of Konya. The kindergartens of the primary schools in the district of Karatay were classified under two groups; those that exercised inclusive education and those that did not exercise inclusive education. Results of this study, conducted to investigate the effect inclusive education practice has on the peer relations and social skills of 5-6 year old children, concluded the in general inclusive education practice has a positive effect on the level of aggression, prosocial behaviour, asocial behaviour, and victimisation, which are related to peer relations, and interpersonal skills, anger management skills and adaptation to change, self-control skills and task completing skills, which are social skill variables. There was no significant difference between the score means of chosen peer relations and social skill variables for the children in both groups based on first measurements taken before inclusive education practice.

Introduction

Inclusive education is educating children with special educational needs (SEN) together with their typically developing peers in a natural environment (de Groot Kim, 2005). Children with SEN are included in a programme with children demonstrating normal progress from preschool onwards, and efforts are made to help children with SEN to socialise and adapt (Seçer, 2010). Studies set forth that inclusive education is beneficial for both children with special educational needs and children with typical development (McDonnell et al., 2003). In numerous countries, inclusive education plays an important role within the context of early childhood special education (McCabe, 2003). Inclusive education has started to become common practice in Turkey since 1997 (Turkish Ministry of National Education, 1997). The elements needed in order for inclusive education to be effective are teachers, children with typically developing, children with SEN, school management, families of inclusive education students, families of normal children, physical environment, supportive special training services, and additional services (Batu & Kırcaali-Iftar, 2006).

Numerous studies have investigated the effect of preschool inclusive education. For example, a study conducted by Poyraz-Tüy (1999) identified that inclusive education increased the social skills of deaf children and reduced their problematic behaviours. In his study, de Groot Kim (2005) reported the experiences Kevin, a physically disabled young child, underwent in an inclusive classroom. The study concluded that adult assistance and curriculum activity in an inclusive classroom had a positive effect on Kevin's social interaction with his peers, and improved his social communication. Researchers (Ryndak & Alper, 1992; Tylor, 1999) state that inclusive education should be supported to its full potential as it improves the social skills and friendships of children with special educational needs.

Inclusive education is also beneficial for children with typical development. Children develop a point of view that is more understanding, more attentive, sensitive, and loving against others in particular towards their peers with SEN, as well as having a respectful and realistic point of view towards personal differences (Atay, 1995).

When we take into consideration the effect preschool education, known as a critical period and a period in which the foundation of personality is built, has on the school and social life of children with special educational needs and normal children, the importance of inclusive education in this period increases that much more.

Even though there has been an increase in the number of studies regarding inclusive practices during preschool education in Turkey, in recent years, the number of studies conducted is still inadequate (Artan & Balat, 2003). Current studies include developing subject-related scales (Küçüker, Acarlar & Kapci, 2006), qualifications/role of teachers in terms of inclusive education (Sarı, Çeliköz & Seçer, 2009; Seçer, 2010), teachers' views on inclusive education (Bozarslan-Malkoç, 2010; Seçer, Sarı & Çetin, 2010), and comparing the social skills and problematic behaviours of children with special education needs (SEN) and children with typical development (Orhan, 2010). Looking at studies that address the effects inclusive education has on the peer relations and social skills of young children Duman-Sever (2007) applied the Teacher Support Programme for Inclusive Education, which addresses self-care skills, motor, social, cognitive, and language development. The study concluded that the Teacher Support Programme for Inclusive Education had an effect on supporting the self-care skills, motor, social, cognitive, and language development of preschool children, both with SEN and with typical development. In their study, Çulhaoğlu-İmrak (2009) investigated peer relations in classes that exercised inclusive education; they concluded that positive social communication behaviours were more in comparison to adverse social communication behaviours in classes that exercised inclusive education.

The majority of studies conducted regarding inclusive education investigate the effect inclusive education has on children with SEN; the number of studies that investigate the effect inclusive education has on the behaviour and skills of children with typical development is limited. It is important to set forth the effect inclusive education has on children with typical development in order to spread inclusive education. Accordingly, the purpose of this study is to set forth the effect preschool inclusive education practices have on the peer relations of 5-6 year olds with typical development. Answers to the questions listed below were sought in order to achieve the said purpose.

Is there a difference between the aggression levels of 5-6 year olds based on inclusive education practices? Is there a difference between the prosocial behaviour levels of 5-6 year olds based on inclusive education practices? Is there a difference between the asocial behaviour levels of 5-6 year olds based on inclusive education practices? Is there a difference between the victimisation levels of 5-6 year olds based on inclusive education practices? Is there a difference between the interpersonal skill levels of 5-6 year olds based on inclusive education practices? Is there a difference between the anger management skill levels and adaptation to change levels of 5-6 year olds based on inclusive education practices? Is there a difference between the self-control skill levels of 5-6 year olds based on inclusive education practices? Is there a difference between the task completing skill levels of 5-6 year olds based on inclusive education practices?

Method

Participants

The study comprised of two sample groups. The children in both groups were attendees of kindergartens at primary schools governed by the Ministry of National Education located in the Karatay district of Konya. The kindergartens of the primary schools in the district of Karatay were classified under two groups; those that exercised inclusive education and those that did not exercise inclusive education. 10 schools were picked out of a hat for every group. Children attending four of the ten schools did not participate in inclusive education practices throughout the school year.

The first sample group comprised of children with typical development, aged between 5 and 6. There were no children with SEN in the group comprised of one hundred twenty-four children. 67 (54%) of the children were girls, and 57 (46%) were boys. The second sample group of the study comprised of 101 children. The children in the second sample group of the study were attendees of four kindergartens of primary schools. All of the children in the second sample group were children with typical development. 52 (51.5%) of the children were girls, and 49 (48.5%) were boys. There was an inclusive education

student in every class. The first of the inclusive education students was a 6-year old girl with Down Syndrome. She participated in 6 hours of inclusive education; 2-hour classes, three days a week. The second inclusive education student was a seven year old boy with speech and language disorder, who was slightly mentally retarded. He attended kindergarten 10 hours a week; 2-hour classes every day. The third and forth inclusive education students were a physically disabled boy and a physically disabled girl. These six year olds have difficulty walking. These children attended kindergarten all day, every day; 40-hour week. Disabled children were referred to kindergartens by Konya Karatay Rehberlik Araştırma Merkezi. There was no special training expert available to attend to the children.

Measures

The Child Behaviour Scale is a measurement tool developed by Gary W. Ladd and Suzan M. Profilet in 1996, to evaluate the peer relations of preschool children according to the information provided by teachers. The scale consists of 6 subscales and 44 items. The subscales are aggression with peers, prosocial behaviours with peers, asocial behaviours with peers, anxiety-fear, exclusion by peers, hyperactivity-distractibility (Ladd & Profilet, 1996). All subscales of the Child Behaviour Scale were used in this research. The evaluations of all the scale items are in accordance with the expressions *Never*, *Sometimes*, and *Always*. The internal consistency coefficient for the subscale *Aggression with Peers* was .87, the internal consistency coefficient for the subscale *Prosocial Behaviours with Peers* was .88, the internal consistency coefficient for the subscale *Asocial Behaviours with Peers* was .84, the internal consistency coefficient for the subscale *Anxiety-Fear* was .78, the internal consistency coefficient for the subscale *Exclusion by Peers* was .89, and the internal consistency coefficient for the subscale *Hyperactivity-Distractibility* was .83 (Gülay, 2008). Sub-scales aggression, prosocial behaviour, and asocial behaviour were used for this study.

The Peer Victimization Scale is a measurement tool, developed by Ladd and Kochenderfer-Ladd for children aged between 5 and 6 in 2002. The teachers completed the scale. The scale includes four items, each of which focuses on one of the four types of peer aggression (physical, indirect, direct, and general). Evaluations for each item are in accordance with *Never*, *Sometimes*, and *Always* (Ladd & Kochenderfer-Ladd, 2002). In 2008, Gülay carried out linguistic equivalence, reliability, and validity studies for the scale. The internal consistency coefficient for the scale was determined as .72 (Gülay, 2008).

The Social Skills Assessment Scale: Avcıoğlu developed the teacher-rating instrument in 2007 to describe the social skills of children aged between 4 and 6. The 62-item scale is assessed with five different descriptions; *always*, *frequently*, *usually*, *rarely*, and *never*. The internal consistency coefficient of the scale is .98. The scale has nine sub-scales. Listed below are the headings, number of related items, and internal consistency coefficients of the sub-scales.

Interpersonal skills (15 items; cronbach alpha: .95), Anger management skills and adaptation to change (11 items; cronbach alpha: .94), Skills in coping with peer pressure (10 items; cronbach alpha: .92), Self-control skills (4 items; cronbach alpha: .91), Verbal expression skills (7 items; cronbach alpha: .85), Result accepting skills (4 items; cronbach alpha: .95), Listening skills (5 items; cronbach alpha: .87), Target establishing skills (3 items; cronbach alpha: .78), Task completing skills (3 items; cronbach alpha: .88) (Avcıoğlu, 2007). The sub-scales interpersonal skills, anger management skills and adaptation to change, self-control skills, and task completing skills of the scale were used for this study.

Procedure

The measurement tools used for this study were completed twice within the 2010-2011 school year by the kindergarten teachers; October 2010 and May 2011. Measurement tools were completed in October 2010 in an effort to determine whether or not there was a significant difference between the score mean of relevant variables for the two groups prior to inclusive education practices. Prior to starting the study, teachers and families of the children in the two groups were informed about the measurement tools and the purpose of the study. Teachers completed the forms based on their general observation of the children. Daily exercises of kindergartens in both sample groups were planned in line with each other in order to set forth the effect of inclusive education practices. Therefore, it was recommended that daily plans were made in advance and shared between the teachers of both groups. Teachers of the classes participating in inclusive education conducted exercises directed at inclusive education (activities, special day and week celebrations), as well as standardised daily plan activities. Support was sought from the physical lay-out of the class, and the Counselling and Research Centre if necessary. The said activities were established by the teachers; expert opinion was sought from researchers when required. In this study, the independent samples t-test was used to compare measurements conducted in October and

May in order to set forth the effect inclusive education practices have on the peer relations and social skills of 5-6 year olds with typical development.

Results

Table 1. The t-test results for peer relations and social skill scores based on inclusive education practice (First measurement - October 2010)

Peer relationships-social variables	skills	Inclusive practices	N	\bar{X}	S	df	t	p
Aggression		Group 1*	124	1.97	2.39	223	.141	.888
		Group 2	101	1.92	2.58			
Prosocial behavior		Group 1*	124	12.48	4.89	223	-1.555	.138
		Group 2	101	13.00	4.58			
Asocial behaviour		Group 1*	124	2.56	2.91	223	-1.517	.131
		Group 2	101	3.13	2.60			
Victimisation		Group 1*	124	.69	1.27	223	-.167	.867
		Group 2	101	.72	1.34			
Interpersonal skills		Group 1*	124	46.15	11.08	223	-.872	.384
		Group 2	101	47.42	10.59			
Anger management skills and adaptation to change		Group 1*	124	26.31	5.71	223	-.918	.360
		Group 2	101	26.99	5.36			
Self-control skills		Group 1*	124	33.64	8.59	223	-1.602	.111
		Group 2	101	35.42	7.89			
Task completing skills		Group 1*	124	11.70	2.98	223	-.683	.495
		Group 2	101	11.96	2.83			

*Group 1: No inclusive education practice

Group 2: Inclusive education practice

There was no significant difference between the peer relations of the two groups prior to inclusive education practices (first measurements); aggression [$t(223) = .141, p > .05$], prosocial behaviour [$t(223) = -1.555, p > .05$], asocial behaviour [$t(223) = -1.517, p > .05$], and victimisation [$t(223) = -.167, p > .05$]. There was no significant difference between the social skill variables of the two groups prior to inclusive education practices (first measurements); interpersonal skills [$t(223) = -.872, p > .05$], anger management skills and adaptation to change [$t(223) = -.918, p > .05$], self-control skills [$t(223) = -1.602, p > .05$], and task completing skills [$t(223) = -.683, p > .05$]. This result concludes that the peer relations and social skill variables of the children in both groups, prior to inclusive education practice, were similar to each other. This result plays an important role in setting forth the effect inclusive education practice has on the children.

Table 2. The t-test results for peer relations and social skills scores based on inclusive education practice (Second measurement - May 2011)

Peer relationships-social variables	skills	Inclusive practices	N	\bar{X}	S	df	t	p
Aggression		Group 1*	124	1.69	2.35	223	-3.300	.000
		Group 2	101	1.00	2.10			
Prosocial behaviour		Group 1*	124	12.55	4.92	223	-3.697	.000
		Group 2	101	14.72	4.02			
Asocial behaviour		Group 1*	124	2.70	2.99	223	2.123	.035
		Group 2	101	1.78	2.54			
Victimisation		Group 1*	124	.50	1.01	223	2.107	.036
		Group 2	101	.39	.81			
Interpersonal skills		Group 1*	124	46.80	11.35	223	-2.258	.025
		Group 2	101	49.43	10.61			
Anger management skills and adaptation to change		Group 1*	124	27.10	5.71	223	-2.013	.045
		Group 2	101	28.54	5.36			
Self-control skills		Group 1*	124	34.08	8.59	223	-2.857	.005
		Group 2	101	37.32	7.89			
Task completing skills		Group 1*	124	11.99	2.90	223	-2.636	.009
		Group 2	101	12.70	2.83			

*Group 1: No inclusive education practice

Group 2: Inclusive education practice

There was significant difference between the peer relations of the two groups after inclusive education practices (second measurements); aggression [$t(223) = -3.300, p < .001$], prosocial behaviour [$t(223) = -3.697, p < .001$], asocial behaviour [$t(223) = 2.123, p < .05$], and victimisation [$t(223) = 2.107, p < .05$]. There was significant difference between the social skill variables of the two groups after inclusive education practices (second measurements); interpersonal skills [$t(223) = -2.258, p < .05$], anger management skills and adaptation to change [$t(223) = -2.013, p < .05$], self-control skills [$t(223) = -2.857, p < .05$], and task completing skills [$t(223) = -2.636, p < .05$]. The prosocial behaviour, interpersonal skills, anger management skills and adaptation to change, self-control skills, and task completing skills were higher in children that participated in inclusive education practice in comparison to children that did not participate in inclusive education practice. The level of aggression and victimisation was lower in children that participated in inclusive education practice in comparison to children that did not participate in inclusive education practice.

Discussion

Results of this study, conducted to investigate the effect inclusive education practice has on the peer relations and social skills of 5-6 year old children, concluded the in general inclusive education practice has a positive effect on the level of aggression, prosocial behaviour, asocial behaviour, and victimisation, which are related to peer relations, and interpersonal skills, anger management skills and adaptation to change, self-control skills and task completing skills, which are social skill variables. There was no significant difference between the score means of chosen peer relations and social skill variables for the children in both groups based on first measurements taken before inclusive education practice. This result carries grave importance in terms of setting forth the effect of inclusive education practice. There was a significant difference between the level of aggression, prosocial behaviour, asocial behaviour, and victimisation, children that participated in inclusive education practice displayed towards their peers in comparison to children that did not participate in inclusive education practice based on second measurements taken at the end of the seven-month inclusive education practice. There was also a significant difference in the level of interpersonal skills, anger management skills and adaptation to change, self-control skills and task completing skills of children that participated in inclusive education practice in comparison to children that did not participate in inclusive education practice based on second measurements taken at the end of the seven-month inclusive education. At the end of the school year, the children that received inclusive education practice displayed prosocial behaviours towards their peers more frequently, while there was a drop in asocial behaviours and peer victimisation. In terms of social skills, an increase was observed in the level of interpersonal skills, anger management skills and adaptation to change, self-control skills, and task completing skills for children that participated in inclusive education practice. Even though children that did not participate in inclusive education practice showed a slight change in the variables selected, the change was not as significant as those observed in children that did participate in inclusive education practice. This result concludes that inclusive education practice has a positive contribution on the peer relations and social skills variables of children.

Studies conducted regarding the subject (Guralnick, 2001; Leyser & Kirk, 2004) state that inclusive education significantly improves social interaction of both children with SEN and children with typical development. Researchers (Buysse, Wesley, Bryant & Gardner, 1999; Odom, Parrish & Hikido, 2001) state that given the opportunity to participate in inclusive education, children with typical development can display a successful performance with their peers with SEN based on collaboration. Child development researches (Coles, 1997; Mayall, 2002) can also explain the positive effect inclusion has on children with typical development based on how children, provided with inclusive education during the early years of their life, are prone to collaborative interactions with peers and adults, development, the positive change, and their desire to learn. As a result, children become open to learning and change, and with their flexible point of view they are able to empathise with their peers that have SEN, they develop tolerance and understanding towards them, and display a kind, facilitating, and positive attitude towards their peers with SEN during inclusion. Giving children with typical development responsibilities, and teaching them specific social skills enables them to become more competent and improve their learning capacity (DeVore & Russell, 2007). In their study, Vakil et al., (2009) investigated the effect inclusive education has on young children, attending kindergarten, with autism and typical development; they concluded that sensitivity and acceptance increased, while victimisation and bullying decreased in all children attending the class that provided inclusive education. They also reported that inclusion helped all children as well as various benefits.

The study had certain limitations. The number of children was limited to 225. Studies should be conducted on a larger number of children. Data gathering tools are based on teacher views. Future

studies should use different information sources such as the views of children, and observations. No support was sought from a specialist or teacher in terms of special training during inclusive education practice. The reason for not seeking support was due to legal procedures. Such professional support may increase the effectiveness of inclusive education practice; therefore, future studies can seek support from specialists such as special training teachers. Another limitation is that this study only covers one school year. Studies should be conducted that set forth the long-term effect of inclusive education practice. This study is limited to variables chosen for the peer relations and social skills of the children. Future studies may take into consideration other peer relation and social skill variables, and even social development variables.

Conclusion

According to results general inclusive education practice has a positive effect on the peer relations, and social skills. Study results conclude that preschool inclusive education practice should be improved. Teachers should be provided in-house training as part of these development studies. Arrangements that initiate and simplify collaboration related to subjects like physical elements such as special training specialists/teachers, counsellors, psychologists, training programmes, and communication with families and children should be implemented at schools that provide inclusive education practice. Families are informed about inclusive education practice. Current training programmes should be planned in order to increase the effectiveness of inclusive education practice; studies should be conducted in order to set forth the level of effectiveness. Classes should be given to university students directed at *preschool inclusive education practice*. Inclusive education practice adds contributions to children with SEN as well as children with typical development; therefore, it is important that more related studies are conducted.

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